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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,110	01/10/2002	Andrew Johnson	AUS920010482US1	2383

7590

08/31/2004

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EXAMINER

BUEHL, BRETT J

ART UNIT

PAPER NUMBER

2183

DATE MAILED: 08/31/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/045,110

Applicant(s)

JOHNSON, ANDREW



Examiner

Brett J Buehl

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 January 2002 and 06 March 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-23 is/are rejected.
- 7) ☒ Claim(s) 16 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10 January 2002 and 06 March 2002 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

### **DETAILED ACTION**

1. Claims 1-23 have been examined.

#### ***Papers Submitted***

2. It is hereby acknowledged that the following papers have been received and placed on record in the file: Declaration and Fees as received on 1/10/02, and Drawings as received on 3/6/02.

#### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.
4. The title of the invention is objected to for not being descriptive. The current title recites only a general concept in the art and does not help to further identify the novelty of the invention. A new title is required that is clearly indicative of the invention to which the claims are directed.
5. The use of the trademarks INTEL, ITANIUM, IBM and POWER3 has been noted in this application. Each trademark should be capitalized wherever it appears and be accompanied by the generic terminology.

Although the use of trademarks is permissible in patent applications, the proprietary nature of the marks should be respected and every effort made to prevent their use in any manner which might adversely affect their validity as trademarks.

***Claim Objections***

6. Claim 16 is objected to because of the following informalities:
    - a. Claim 16 recites the limitation, "moving a load instruction from retrieving information". It is believed that the word "from" should be replaced with the word "for." In its current state, the limitation makes it unclear from where the instruction is being moved.
- Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
8. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
9. Claim 20 recites the limitation "said status bit" in line 2. There is insufficient antecedent basis for this limitation in the claim.

***Claim Rejections - 35 USC § 102***

11. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the

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international application designated the United States and was published under Article 21(2) of such treaty in the English language.

12. Claims 1-23 are rejected under 35 U.S.C. 102(e) as being anticipated by Harris, U.S. PG-Pub 2001/0056530 A1.

13. Regarding claim 1, Harris has taught a method of operating a data processing system, having a microprocessor that executes program instructions, comprising the steps of: determining an order of said program instructions (3<sup>rd</sup> paragraph, 3<sup>rd</sup> sentence); moving a certain one of said program instructions to an advanced position in said program order (2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence); checking status information associated with said certain program instruction to determine whether it will execute successfully (6<sup>th</sup> paragraph, 3<sup>rd</sup> sentence); and retrying said certain program instruction when said certain program instruction does not execute successfully (6<sup>th</sup> paragraph, 4<sup>th</sup> sentence).

The arguments as stated for claim 1 are merely exemplary and, given the similarities between the claims, are also applicable to claims 6, 11, 16 and 19. For claim 16, the arguments for claim 3 are also applicable to address checking the status of the speculative load instruction based on the state of a status bit. For claim 19, a control unit that processes instructions is inherent since a control unit is essential for a processor to operate.

14. Regarding claim 2, Harris has taught the method of claim 1 wherein said certain program instruction is a load instruction (2<sup>nd</sup> paragraph, 1<sup>st</sup> sentence) for retrieving information from memory.

The arguments as stated for claim 2 are merely exemplary and, given the similarities between the claims, are also applicable to claims 7 and 12.

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15. Regarding claim 3, Harris has taught the a method according to claim 2 wherein said step of checking the status information comprises the step of determining whether the information to be retrieved by said load instruction is valid based on the state of a status bit (6<sup>th</sup> paragraph, 3<sup>rd</sup> sentence). Harris discloses that using several valid bits is equivalent to using a single bit (56<sup>th</sup> paragraph, 3<sup>rd</sup> sentence) or a Not-a-Number value (59<sup>th</sup> paragraph, 2<sup>nd</sup> sentence).

The arguments as stated for claim 3 are merely exemplary and, given the similarities between the claims, are also applicable to claims 8, 13, 17 and 22.

16. Regarding claim 4, Harris has taught a method according to claim 3 wherein said step of retrying comprises the step of loading, based on said status bit, the data again without implementing any recovery procedures (6<sup>th</sup> paragraph, 6<sup>th</sup> sentence).

The arguments as stated for claim 4 are merely exemplary and, given the similarities between the claims, are also applicable to claims 9, 14, 18 and 20.

17. Regarding claim 5, Harris has taught a method according to claim 4 wherein said step of checking is implemented by a speculative load check program instructions (6<sup>th</sup> paragraph, 4<sup>th</sup> sentence).

The arguments as stated for claim 5 are merely exemplary and, given the similarities between the claims, are also applicable to claims 10 and 15.

18. Regarding claim 21, Harris has taught a data processing system, comprising:

- a. A memory. It is inherent that a load/store architecture have a memory (e.g. cache memory) for the load and store instructions to access;

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- b. A microprocessor that executes program instructions including a load instruction which retrieves information from said memory (6<sup>th</sup> paragraph, 1<sup>st</sup> sentence);
- c. A compiler that determines an order of said program instructions, and is capable of moving said load instruction to an advanced position in said program order (3<sup>rd</sup> paragraph, 3<sup>rd</sup> sentence);
- d. A status register that stores an indication of the validity of said load instruction (See claim 3); and
- e. A control unit that processes a check load instruction to determine the state of said status register. It is inherent that a processor has a control unit that processes instructions in order for the processor to operate;
- f. Wherein execution of said load instruction is retired based on the state of said status register (6<sup>th</sup> paragraph, 3<sup>rd</sup> sentence).

The arguments as stated for claim 21 are merely exemplary and, given the similarities between the claims, are also applicable to claim 23.

### ***Conclusion***

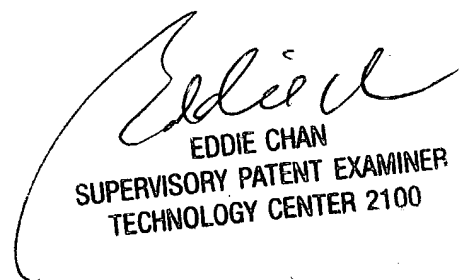
13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Applicant is reminded that in amending in response to a rejection of claims, the patentable novelty must be clearly shown in view of the state of art disclosed by the references cited and the objections made. Applicant must show how the amendments avoid such references and objections. See 37 CFR 1.111(c).

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14. Inquiries concerning this communication or earlier communications from the examiner should be directed to Brett J. Buehl who can be reached at (703) 305-4663 or <brett.buehl@uspto.gov>. The examiner can normally be reached between the hours 8:00am – 5:30pm (EST), Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eddie Chan, can be reached at (703) 305-9712. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
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